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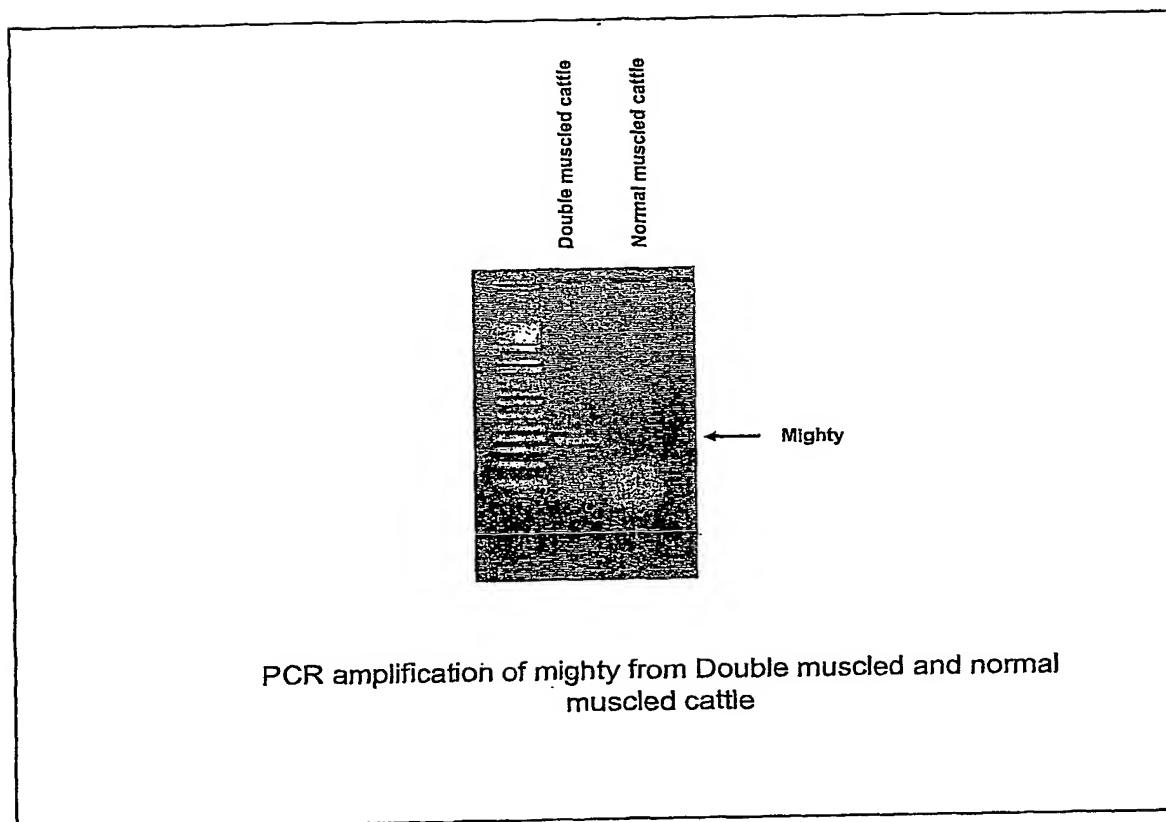
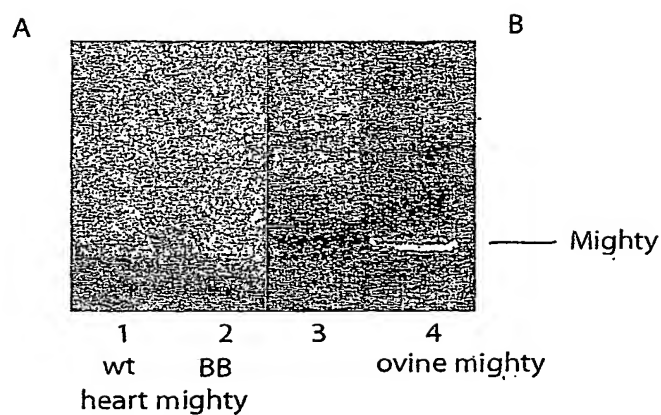


FIGURE 1.

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Lane 1 PCR amplification of mighty from wild type bovine heart
Lane 2 PCR amplification of mighty from Belgian Blue bovine heart
Lane 3 1 kb plus DNA ladder
Lane 4 PCR amplification of mighty from ovine skeletal muscle

FIGURE 2

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CCACATTCACTGTGCAAGTCGTGGGGAAATACAGATGAATAAAGGCTTCCTTGTTATTCTCAAGGAATGTATG
 GTTTTGAAGCACAGTTAGACATATATTCAAATTACAGCTTCCTCCTTTAAAACACTAATATTCCAAGGCACAC
 TCAATGTTTTAAAGGATCACAGAGTGACTACCAAGCACGTAGCAAAACCCTACTAAGAGAGGTGTGTTTAA
 ATGACTACCCAAGGGACATACTTTTCAAGTCTTCTAATCGTTCACTTTGATCTGTTTATACCACAAGAAAAC
 AATTTACTTGATGCTCTTAGGTCCCTTTAAAAATAGGATCGGAAGTGGCTTTTCATGTCTTGGCTTTTA
 TTGAACATAGAAACAGCCATGCAAGCGGTCTTAAAGGCTTTATTACATCATTGTTTTCCTAATAAAGTCAT
 GACAGTCTACCTTTGGAATTAAAGTGATACACAAAATGATGGTCTGTGTCCTCTGGTGAAGTGGTTCC
 TATTACCTGTTATTCATCATGACTATGGTTTTCATTTTTCTTTAGCCTTCAAGAAGCTCAGAACTGAATTTTAA
 TTCAGTCATTACCTGCAAGATTAATTCGAGTTTTTTTTTTTTTAAAAAACTCTAATGTTTTATTCTAGATT
 TTAGTTTAAACCACGTTACATCTATATTGACAATAAATGTGCTAAAATAAACTTAACATGGGTAATGTGCCTA
 GGGAGGCTTGAAATCCCAATATGGCAAAACAAACAGAAAACCAGCAATTTGGTATGCTGTGCTGCTTATATT
 TACAGAAATAAATGTGAAAGTATATGACCTATGTTATGATCTTTAAAGAGTTTGTAGAAACGGAAGAGGACTC
 AGAGAAAAGCAACCAAAACGAACAGGAGGAGAAGGAAGAAGAGGCGGAGAAGGAGGAG
 TGCCTTTATTGTCTAACCCCAAGTGTGTTGAAGTACTGTGACAGCAATCTCGCAATTAGAAATGAGTAT
 CTAATAATTGGACTGTTCTAGAAAAATCTGTTACAGAGATAATGTTAAAGCCAGATTACAGGAATCACAGCCA
 CTAATATACAAATAATTACAGAAAGGCTTTGAATGTGGAGGTGTTGTTCTGATGACTCTATGATGTATTGA
 AAGCACTGGAGTTACTCCCAGGAAAATTACAACCAGAGTTCCTTAAAGCAGAACCTCCCTGTTTTCTATTCA
 TTTGCTGAATATCAAAGCATTTTCCAGCCAACAGTACGGCAATTGACCCGAGGAAGAACCAG
 TCTGAGTTGCCAAGTCGGATGAGGAAGCCAACTCGCAATCTCGCAATTAGAAATGAGTAT
 TCCTTTGGTTAGACAGTTTAAAGCCAGTGAGTTTTCTGGTAGGATTGTTTTTTGGTTTTTTTTTTTCTTTTA
 ATCCTTTTTTGCCTAACACATATCCATTTAGTGATCCGATTAATGGCCGGGTCCTGATGCTGCAAAATACATT
 CATTTGTAACACACCTCCCCTTCCAATTTTGCCCTGAGGTTTCGTGGATTAAATAAAGTCTATCC
 TTAGATAACCCGGTTATGTTTGTGAAGATTTCCTGGGACTCAAGACAAAATCCTTTGATAACCCTTTGATG
 TCTTTTTATCGGTACGCGGCCAAGGGAACCCGGGTCTCCAGGGTCTCGCCATCGCCCGCAGG
 CCCCTGCCGCGCAGGTGCGAAAGACCTCCCAGGCCACTCCGGCAGAGAGCGTGAAGGGGGGGCCCTGGGAG
 GGGCGGGGGCGGGGGTGTGCTAGGCGACCACGCTCTCCGCCAGACCGGCCTACTTCTTCCGAGGGGGCG
 CCATGGGCCGAGCCAGGCTCGCGGGCCTCGGATGCGCCCTTTTCCGACTCTTCCCTCTGCGGGCGG
 GGGGCACGCCCTGACGTCACAGGAGGGGGGCGAGCGGGCTGCCGGGTGCCGAGGGGCCATGGAGCCG
 GCTTGGCTTGGGAGCCGTAGCTGAAGAGTTGGATC

Various transcription factor binding sites:

Ebox

AP-1

E2F

E4BP4

GC box

E2F

FIGURE 3A

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CCACATTCACTGTGCAAGT**CGTGGGG**AAATACAGATGAATAAAGGCTTCCTTGTTATTCTCAAGGAATGTATG
 GTTTTGAAGCACAGTTAGACATATATTCAAATTACAGCTTCCTCCTTTAAACACTAATATTCCAAGGCACAC
 TCAATGTTTTAAAGGATCACAGAGTGA¹CTACCAAAGCACGTAGCAAACCCCTACTAAGAGAGGTGTGTTTAAA
 ATGACTACCCAAGGGACATACTTTTCAAGTCTTCTAATCGTTCACTTTGGATCTGTTTAT**AGCAGA**AAGAAA
 ACAATTTACTTGATGCTCTTAGGTCCCTTAAAAAATAACCATCGTGAAGTGGCTTTTCATGTCCTTGGCCTTT
 TATTGAACATAGAAAACAGCCATGCAAGCGGTCTTAAAGGCTTTATTACATCATTTGTTTCCTAATAAAGTCATG
 ACAGTCTACCTTTGGAATTAAAGTGATACACAAAATGATGGTCTGTGTCTCTGGTGAAGTGGTTCCATT**CAG**
ATAACACCTATT**CAT**CATGACTATGGTTTCATTTTTCTTTAGCCTTCAAGAAGCTCAGAACTGAATTTTAAAT
 TCAGTCATTTACCACCAAGATAATTGTGAGTTTTTTTTTTTTTAAAAAACTCTAATGTTTTATTTCTAGATTT
 TAGTTTAAACCACGTTACATCTATATTGACAATAAATGTGCTAAAATAAACTTAACATGGGTAATGTGCCCTAG
 GGAGGCTTGAATCCCAATATGGCAAACAAACAGAAAACCAGCAATTTGGTATGCTGTGCTGTCTTATATTTT
 ACAGAAATAAATGTGAAAGTATATGACCTATGTTATGATCTTTAAAGAGTTTGTAGAAACGGAAGAGGACTCA
 GAGAAAAGCAACCAAAACGAACAGGAGGAGAAGGAAGAAGAGGCGGAGAAGGAGGAGGAAGATTGGAGATAGT
 ATGCCTTTTATTGTCTA**ACCCCA**AGTGTGTTGAAGTACTGTGACAGCCATCTTGGCAATTAGAAATGAGTA
 TCTAAATTTGGACTGTTCTAGAAAAATCTGTTACAGAGATAATGTTAAAGCCAGATTACAGGAATCACAGCC
 ACTAATATACAAATAATTACAGAAAGGCTTTGAATGTGGAGGTGTTGTTCTGATGACTCTATTGATGTATTTG
 AAAGCACTGGAGTTACT**CCCC**CAGGAAAATTACAACCAGAGTTCCTAAAGCAGAACCTCCCTGTTTTCTATTTC
 ATTTGCTGAATATCAAAGCATTTCACGCCAACAGTACGGCAGAGAATCTCGATTGACCCGAGGAAGAACCA
 GTCTGAGTTGCCAAGTCGGATGAGGAA**GCCAACTGCC**AAATCAGCTATC**AGGGGAAGTTCCTA**ACACCCTGG
 TATCACTTGGTTAGACAGTTTAAGCCAGTGAGTTTTCTGGTAGGATTGTTTTTTGGTTTTTTTTTTTTTCTTTT
 TAATCCTTTTTTTCGTAACACATATCCATTTAGTGATCCGATTAATGGCCGGGTCATCTAT**CCCCAAA**ATACA
 TTCATTTGTAACACACCT**CCCC**TTCCAATTTTGCCCATGATTGCACAGGGTTCGTGGATTAAATAAAGTCTAT
 CCTTAGATAACCCGGTTATGTTTGTGAAGATTTCTGGGACTCAAGACAAAATCCTTTGATAACCCTTTAGAA
 TCACCTCTTTTATCGGTCACGCGGCCAAGGGAACCCGGGTCTCCAGGGTCTCTCCCA**TTTTCCCGCCCCCGAG**
 GCCCTGCGG**CGCAGGTGCG**AAAGACCTCCAGGCCACTCCGGCAGAGAGCGTGAAGGGGGGGGCCCTGGGA
 GGGGCGGGGGCGGGGGTGTGCTAGGCGACCACGCTCTCCGCCAGACCGGCCTACTTCTTCCGAGGGGGCG
 CCATGGGCCGAGCCCAGGCTCGCGGGCCTCCCGGATCGGCCCTTTTCCGACT**TTCTTCCCTCTGCGGGCGGT**
GGCGCACGCCCGTGACGTACAGGAGGCGGGGCCAGCGCGGCTGCCGGGTGCCGAGGGGCCATTGGAGCGG
CTTGGCTTGGGAGCCGTAGCTGAAGAGTTGGATC

Various transcription factor binding sites:

MZF1

AML-1A

Sp1

E47

MyoD

NF-kap

FIGURE 3B

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C2C12- Mouse Mighty Clone Proliferation Assay
72 hrs Proliferation

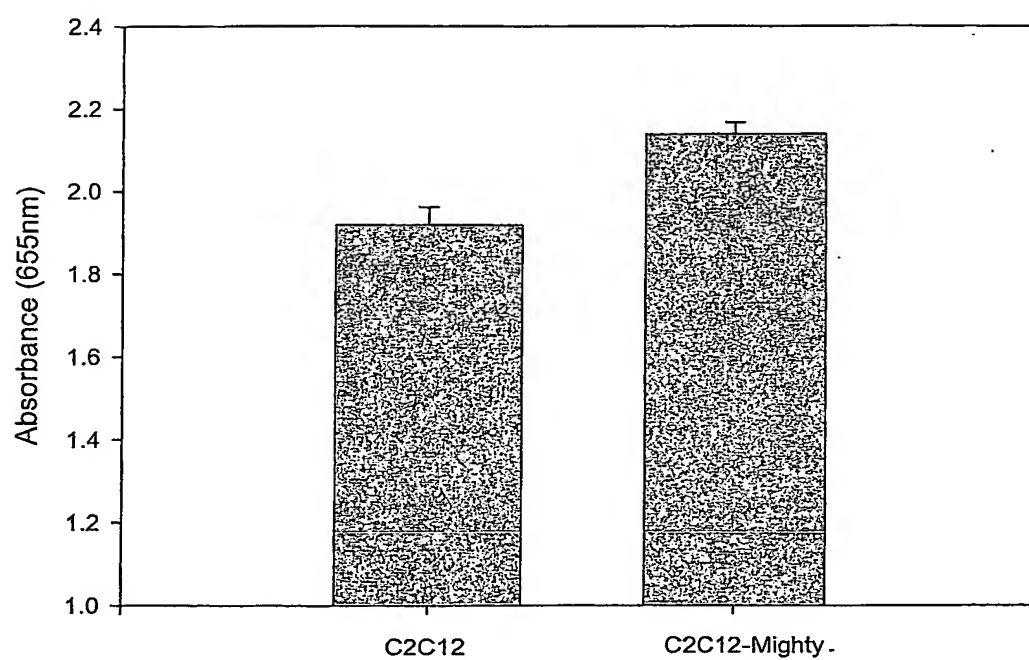


FIGURE 4

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Mighty over expressing
C2 Myotubes



Control C2 Myotubes

FIGURE 5

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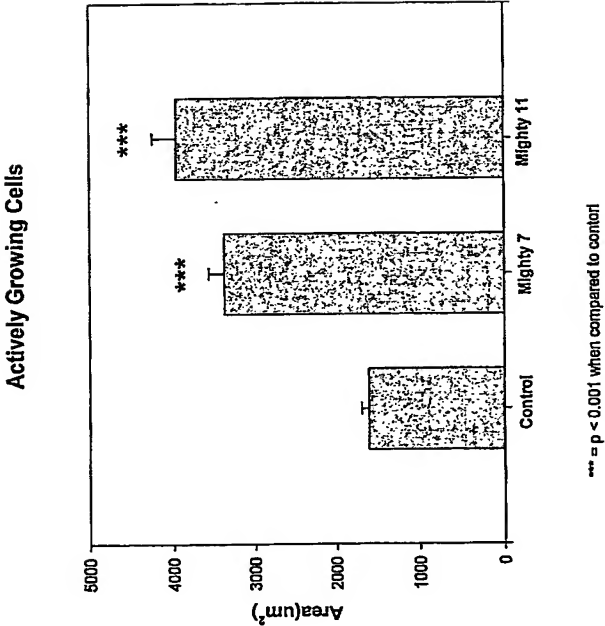


FIGURE 6A

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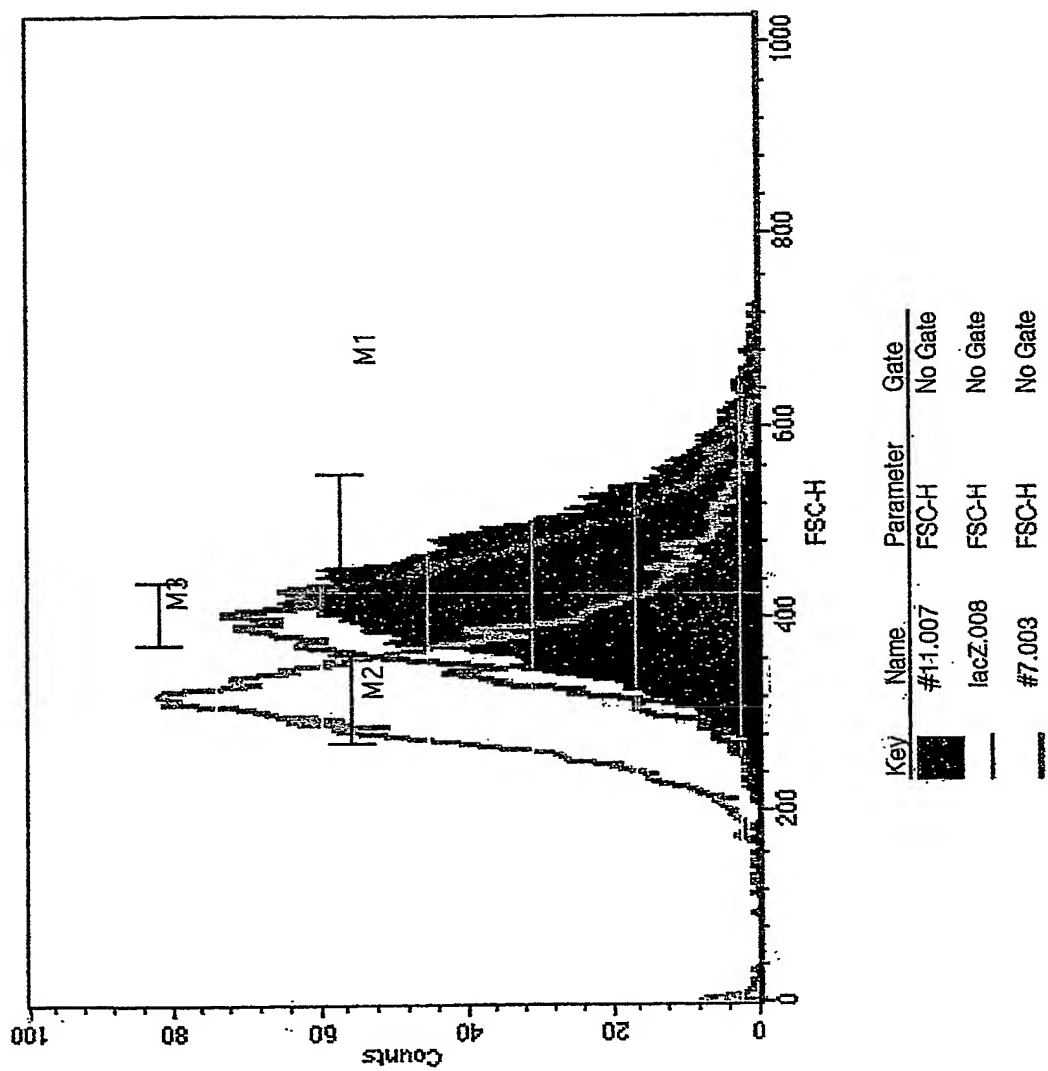
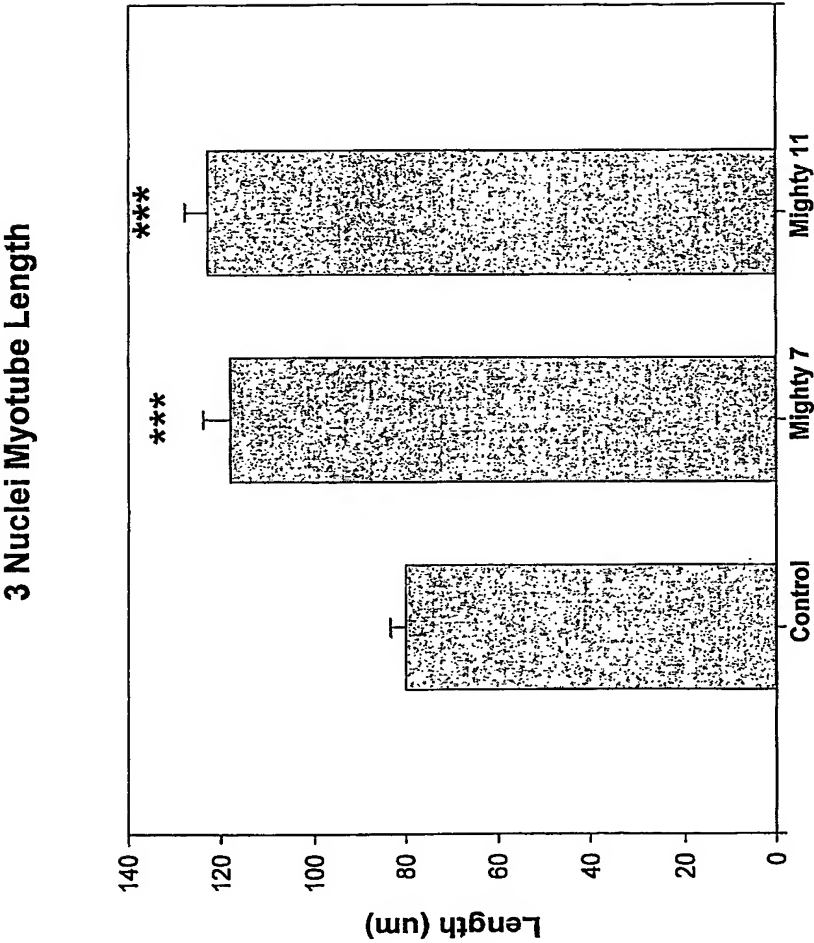


FIGURE 6B

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*** = p < 0.001 when compared to control

FIGURE 6C

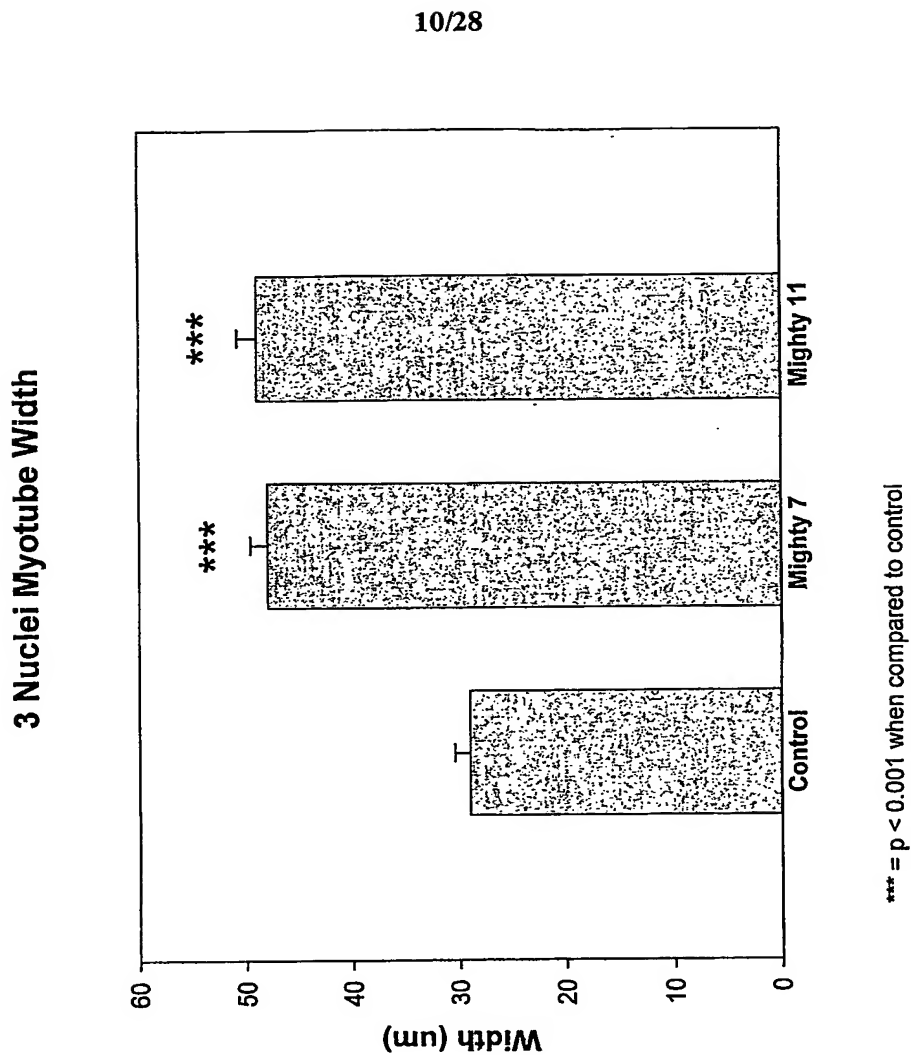
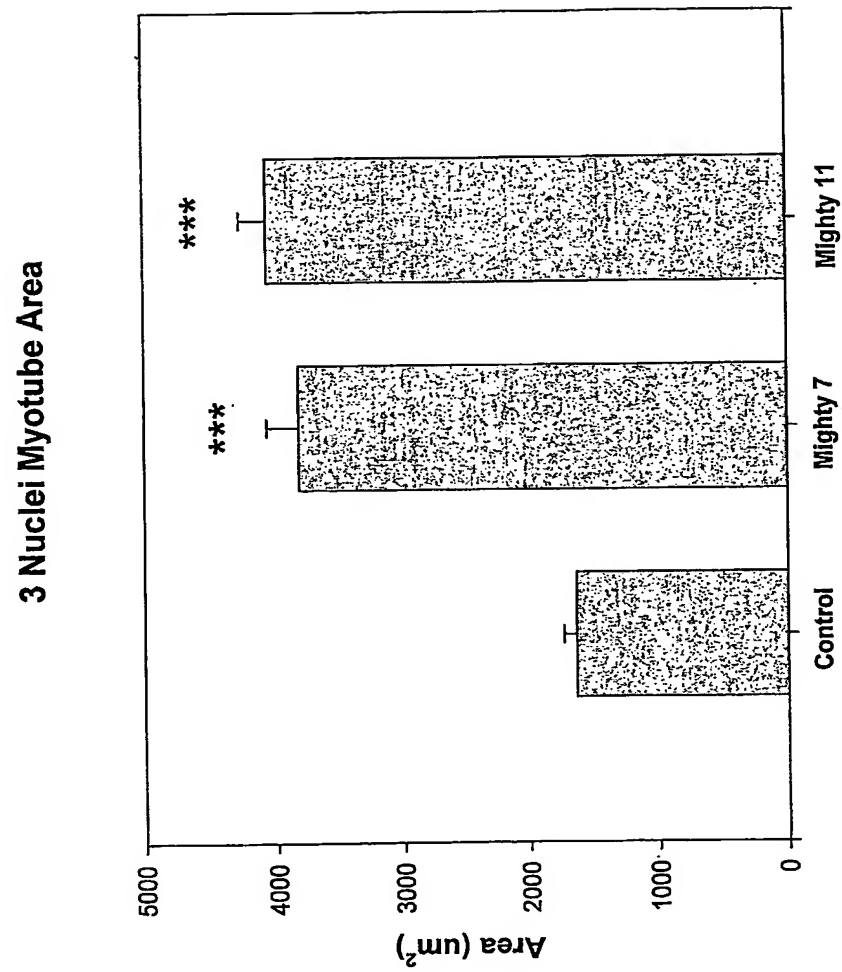


FIGURE 6D

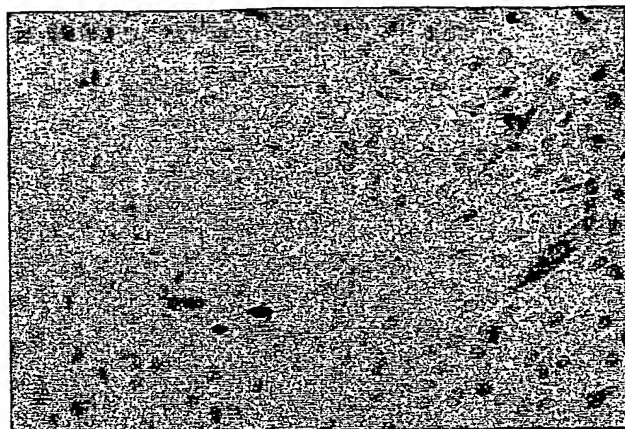
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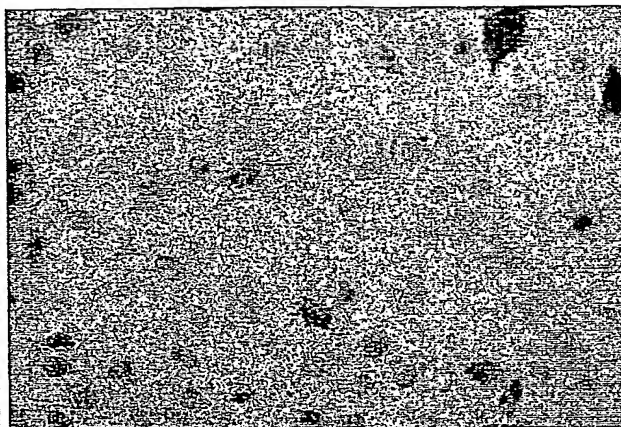
*** = p < 0.001 when compared to control

FIGURE 6E

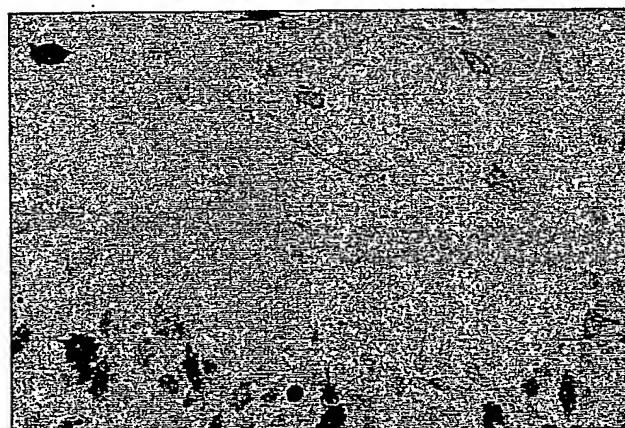
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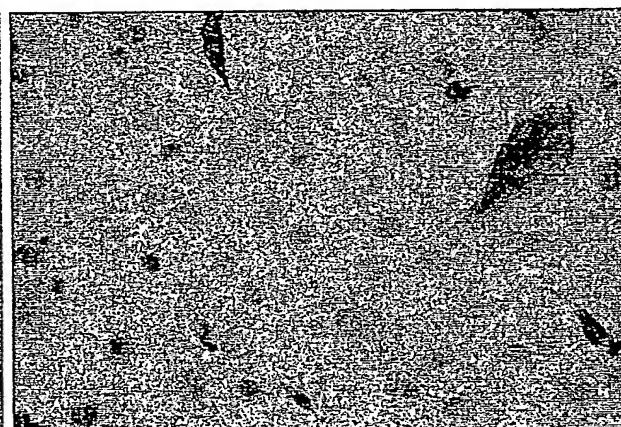
C2C12 - 48 hours differentiation



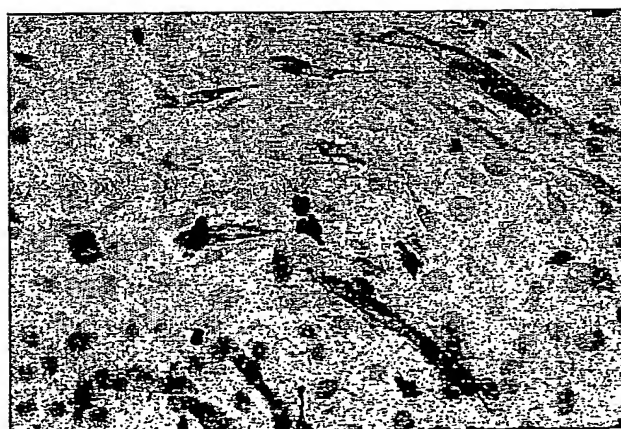
Clone 11 - 48 hours differentiation



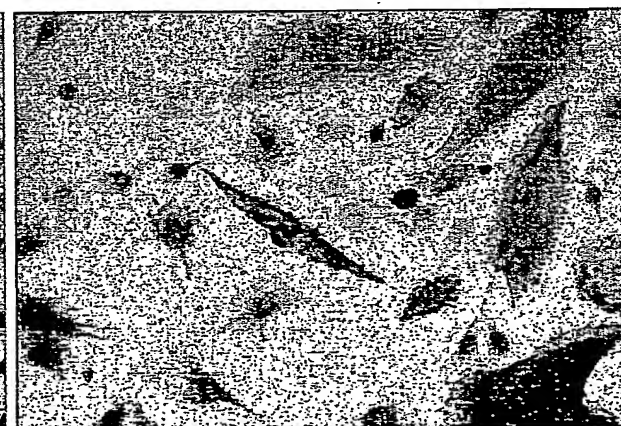
C2C12 - 60 hours differentiation



Clone 11 - 60 hours differentiation



C2C12 - 72 hours differentiation



Clone 11 - 72 hours differentiation

FIGURE 7A

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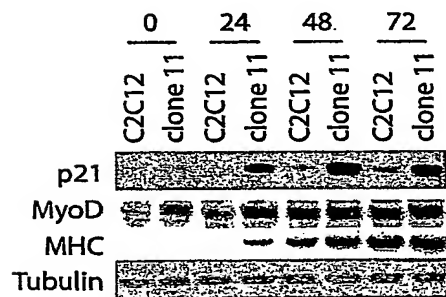
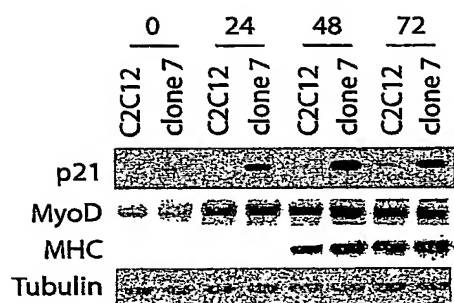


FIGURE 7B

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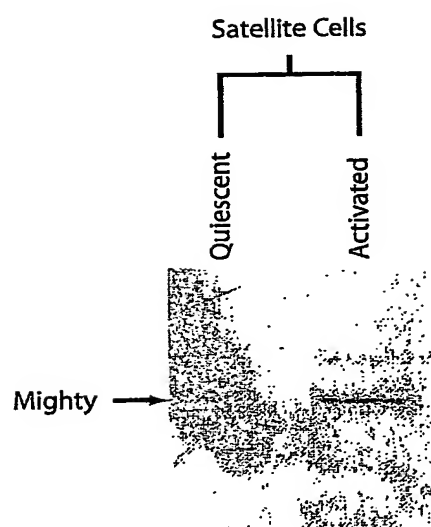


FIGURE 8

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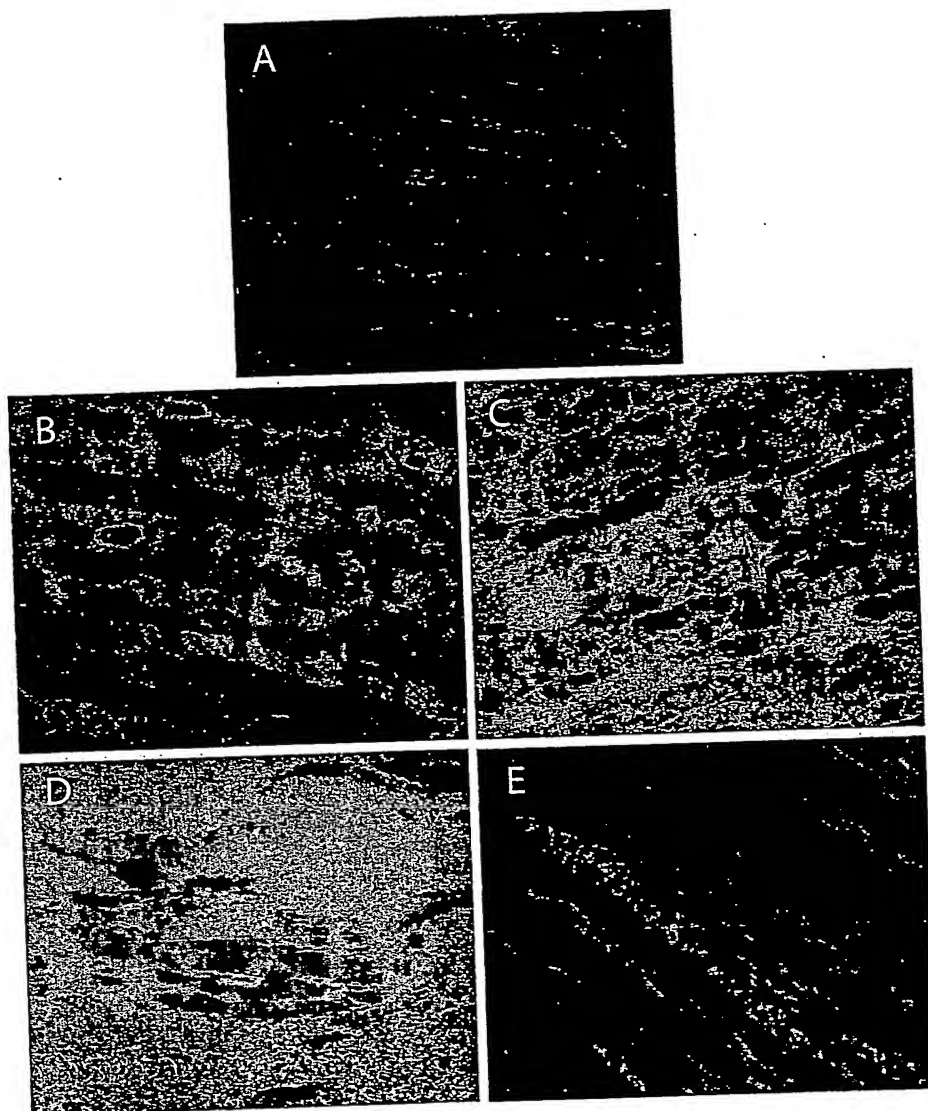


FIGURE 9

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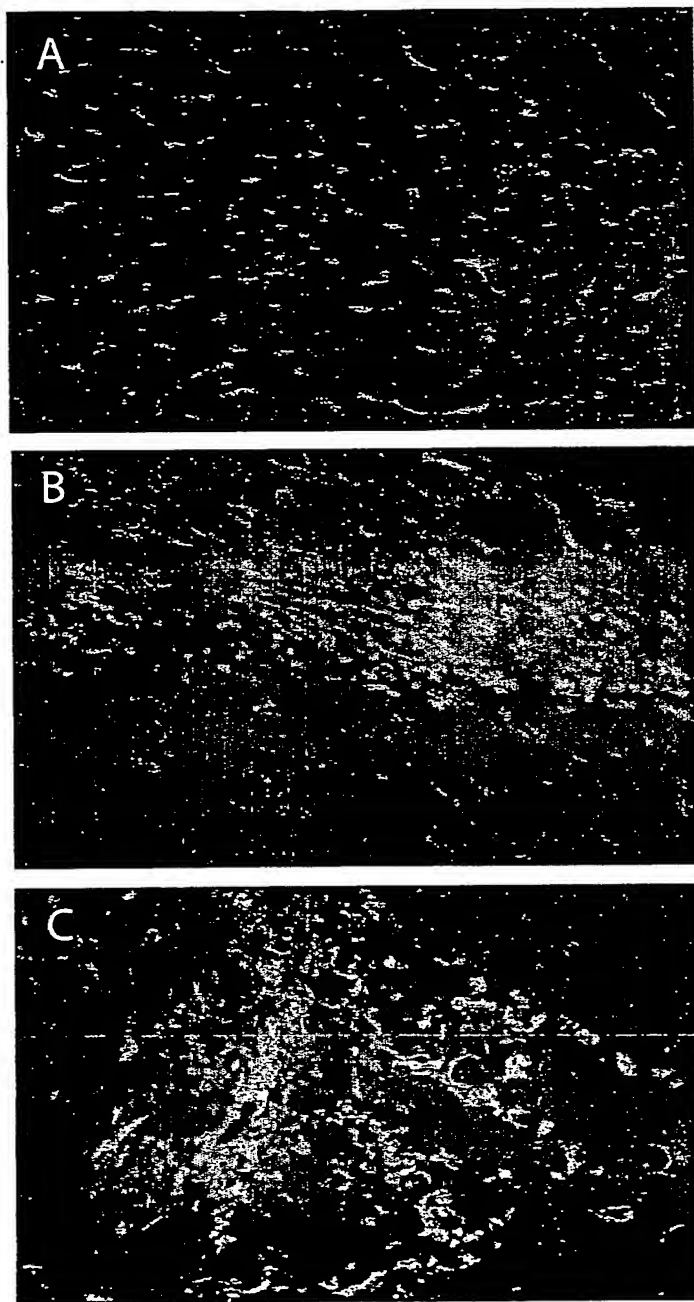


FIGURE 10

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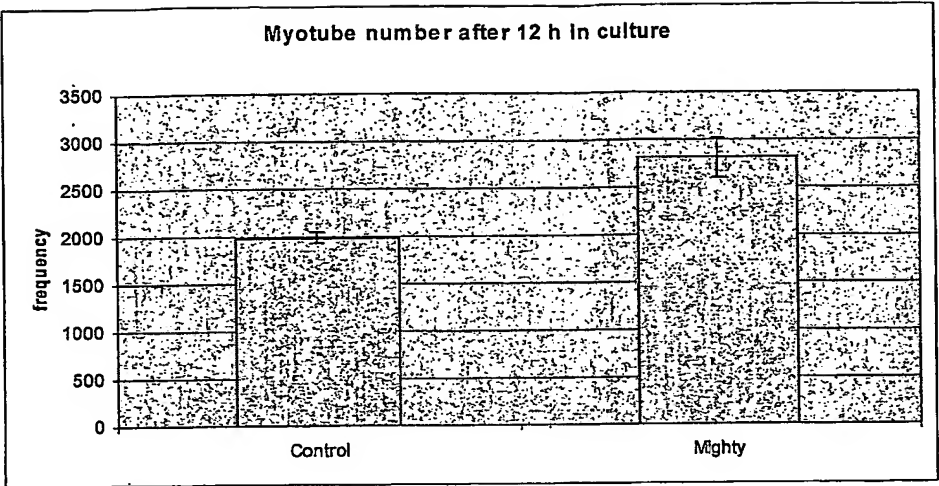


FIGURE 11

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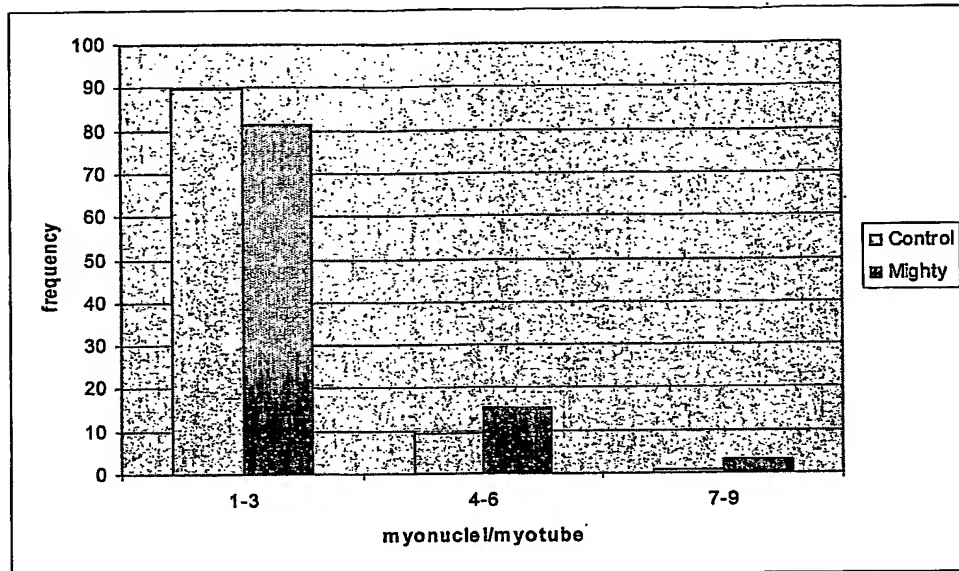


FIGURE 12A

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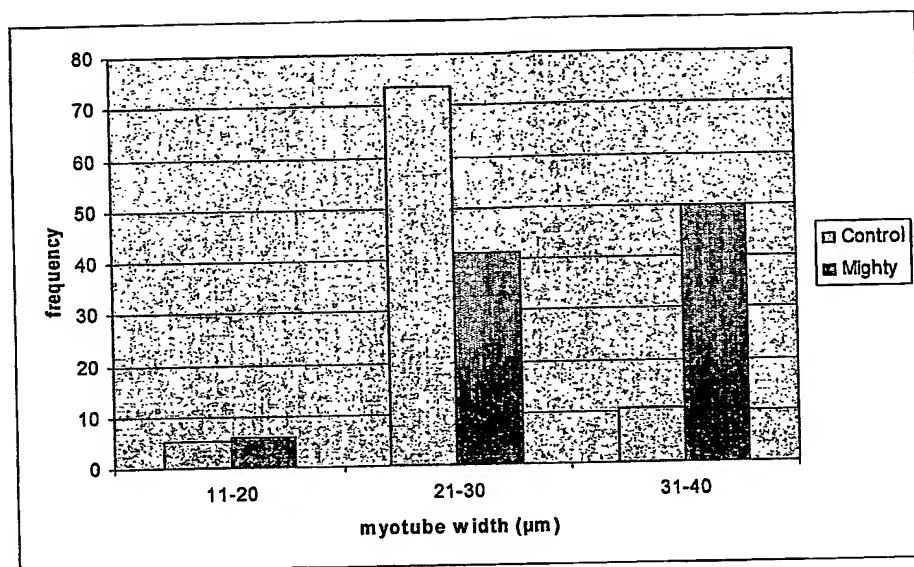
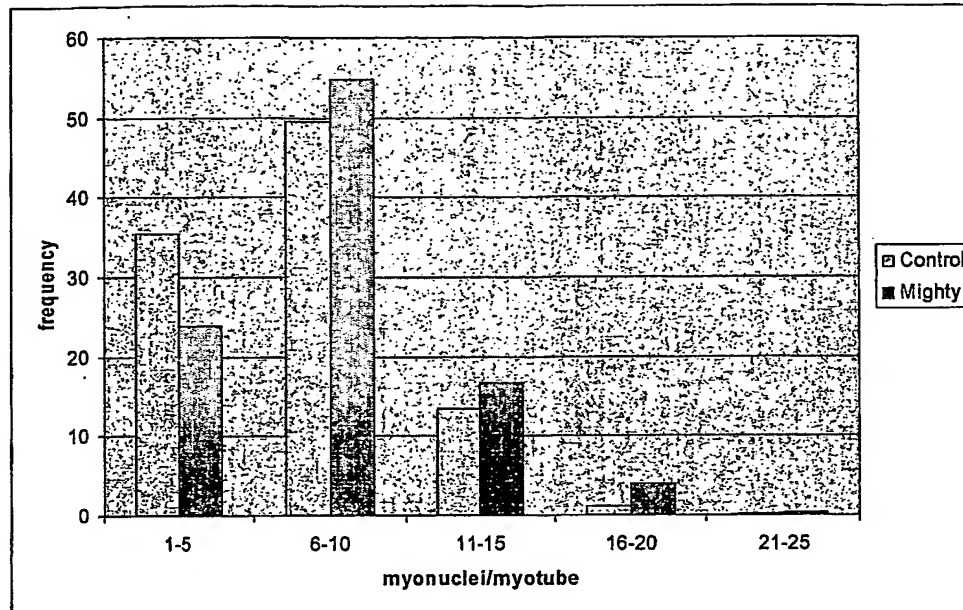
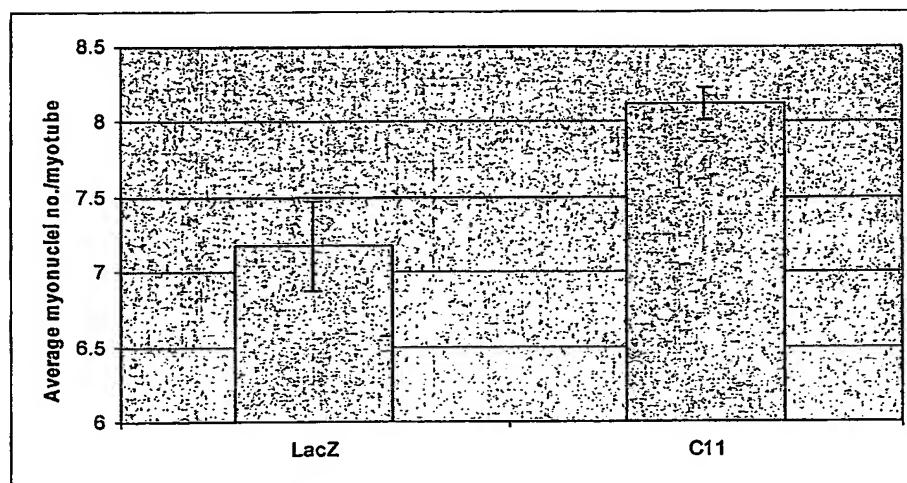


FIGURE 12B

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A**B****FIGURE 13**

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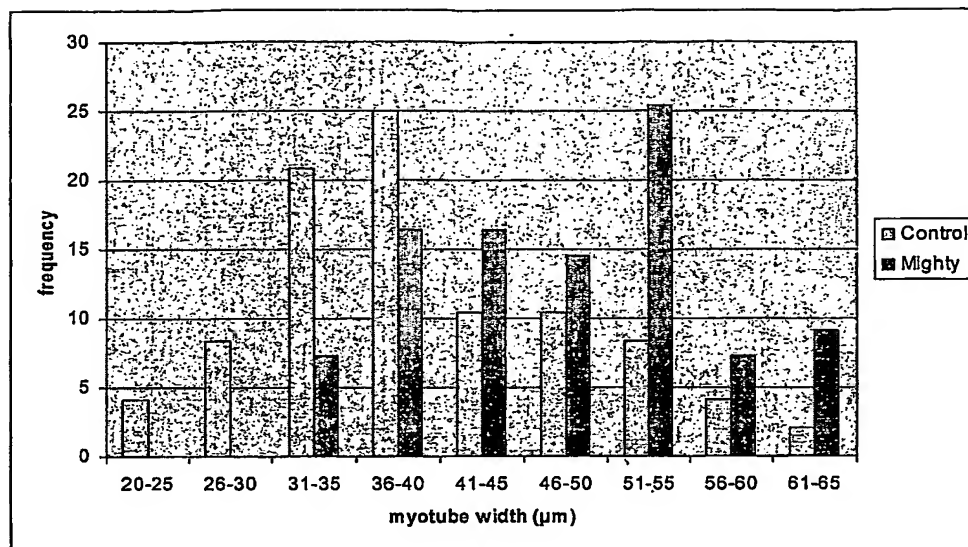


FIGURE 14

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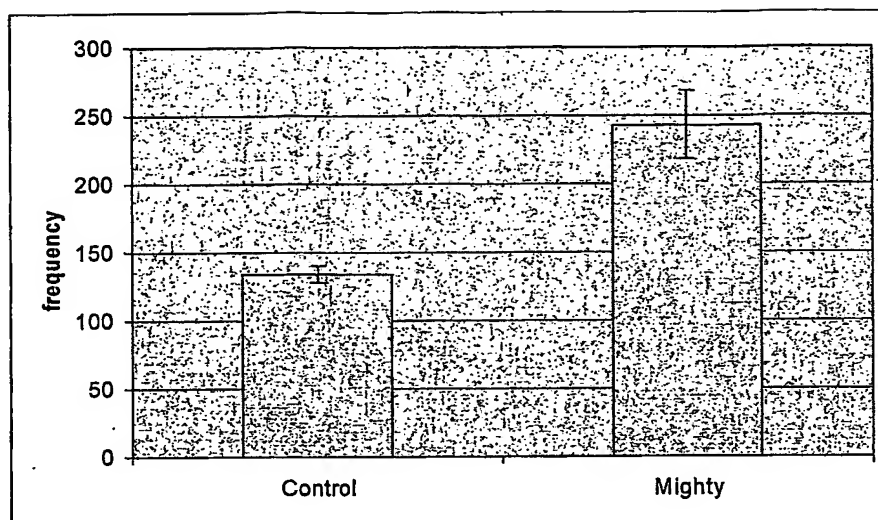


FIGURE 15

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Luciferase Activity of the 1kb mighty promoter in different cell lines

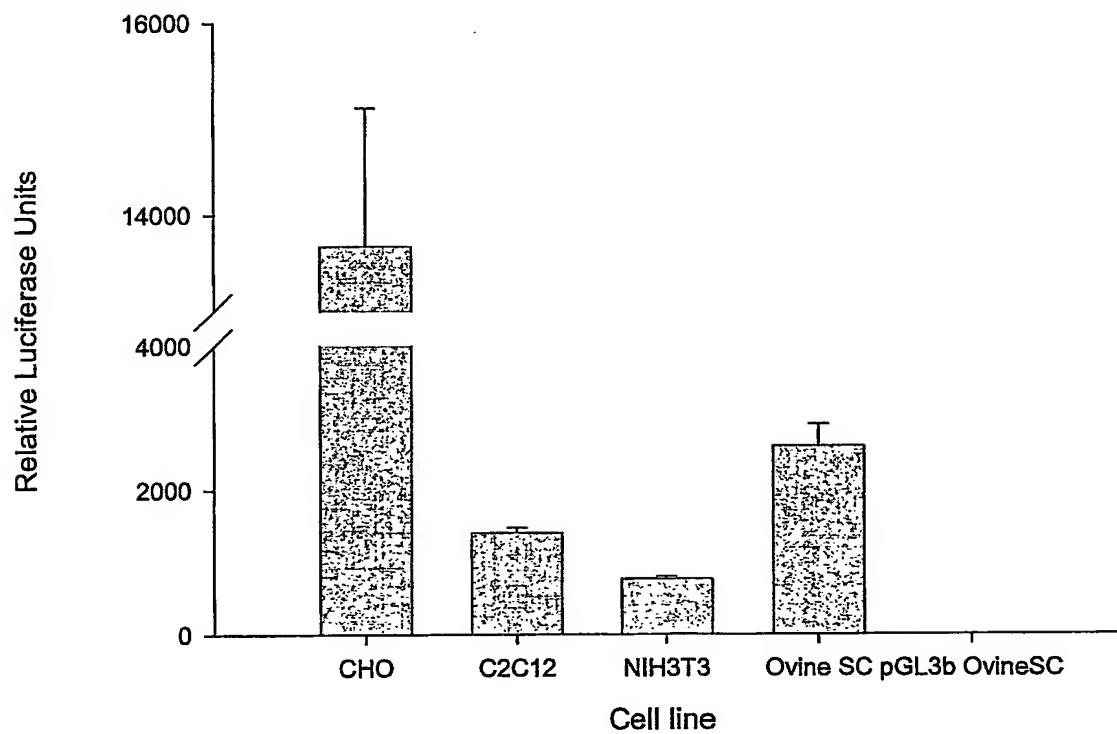


FIGURE 16A

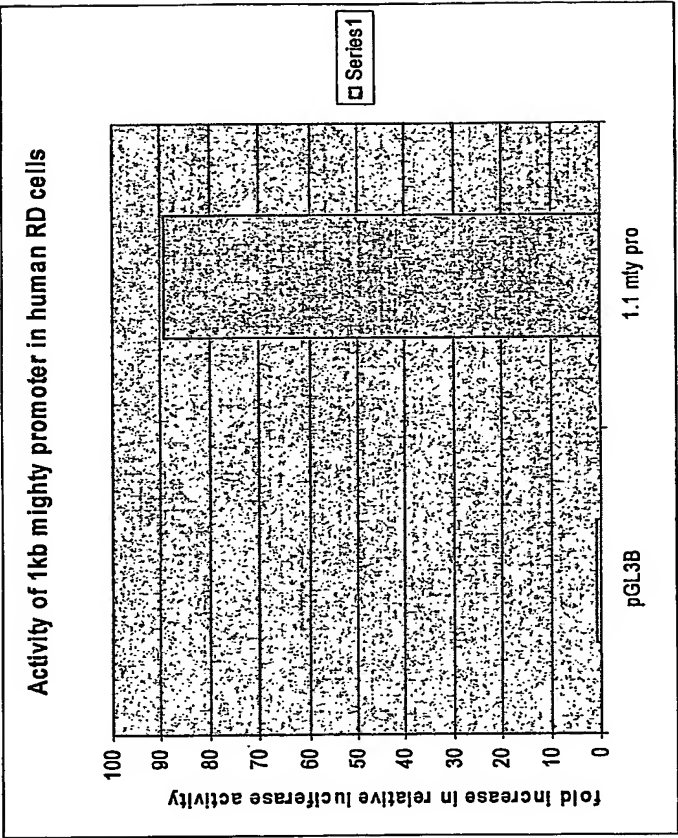
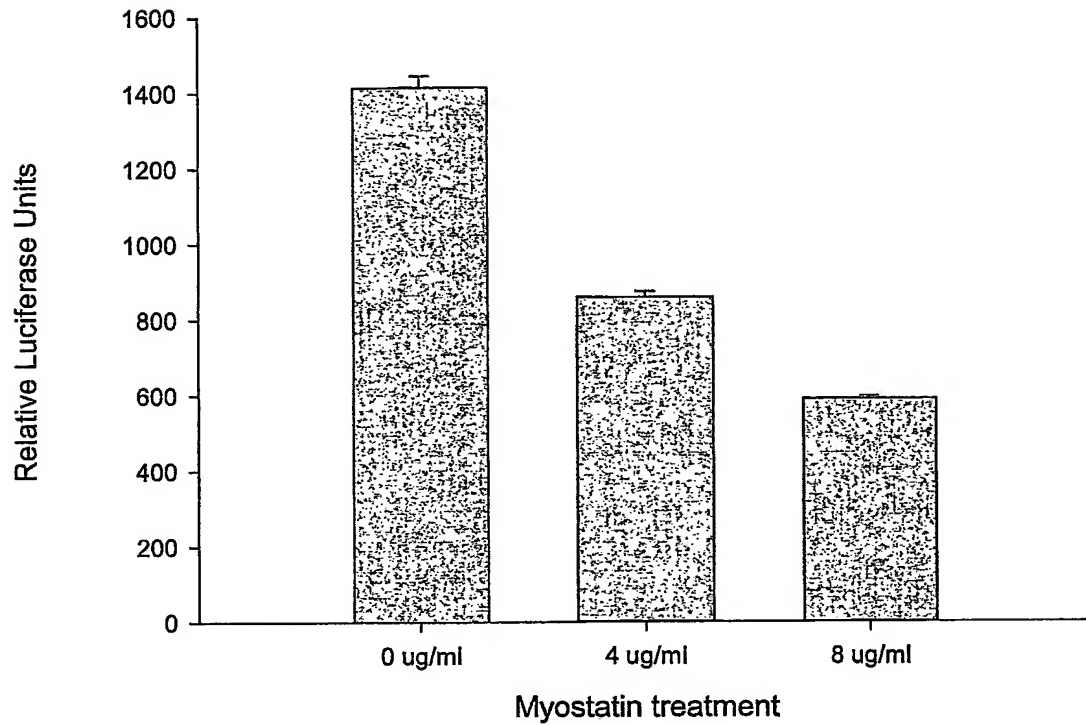


FIGURE 16B

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Luciferase Activity of the 1kb mighty promoter in response
to increasing myostatin concentrations

**FIGURE 17**

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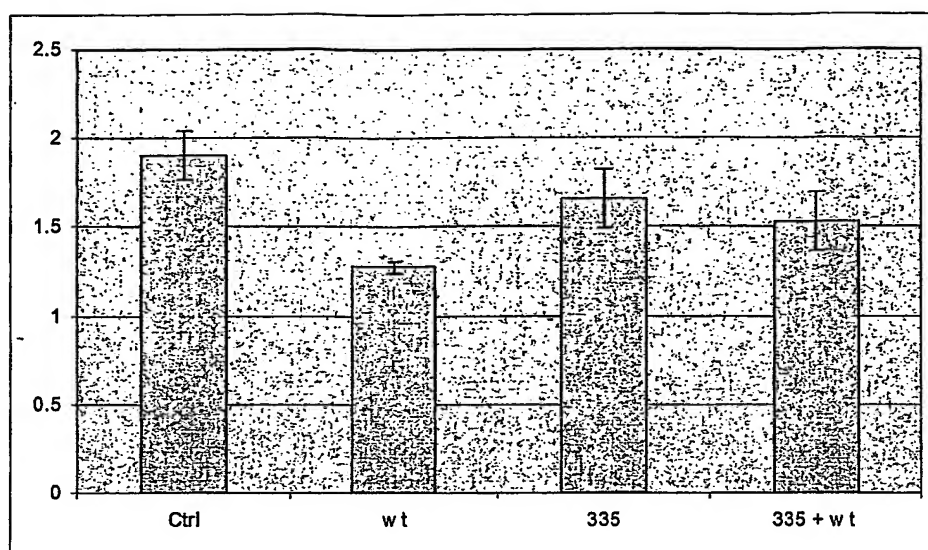
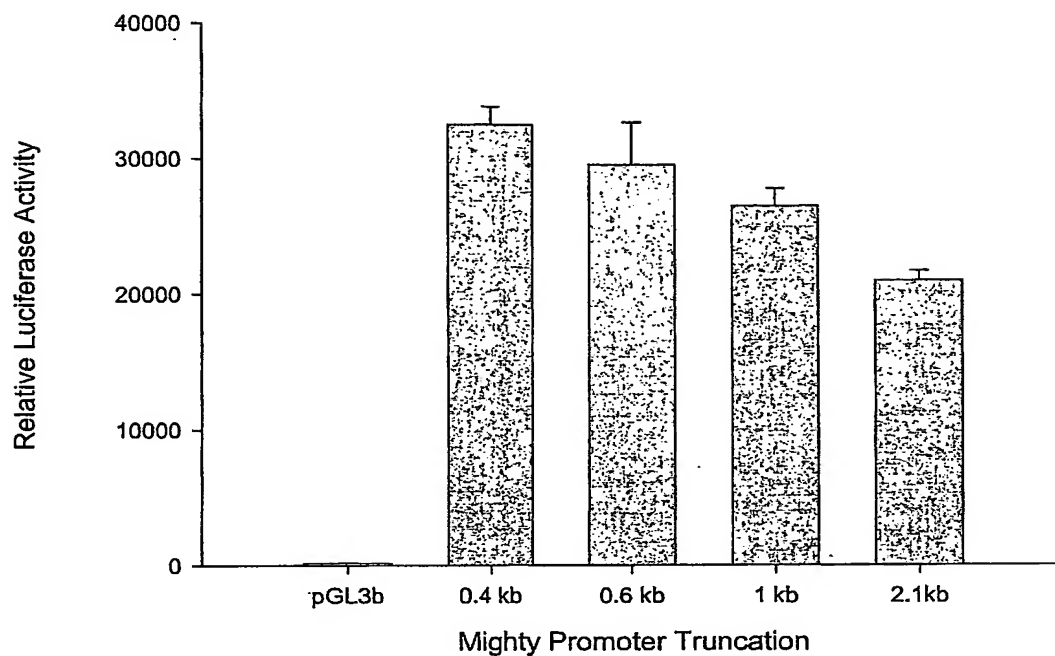
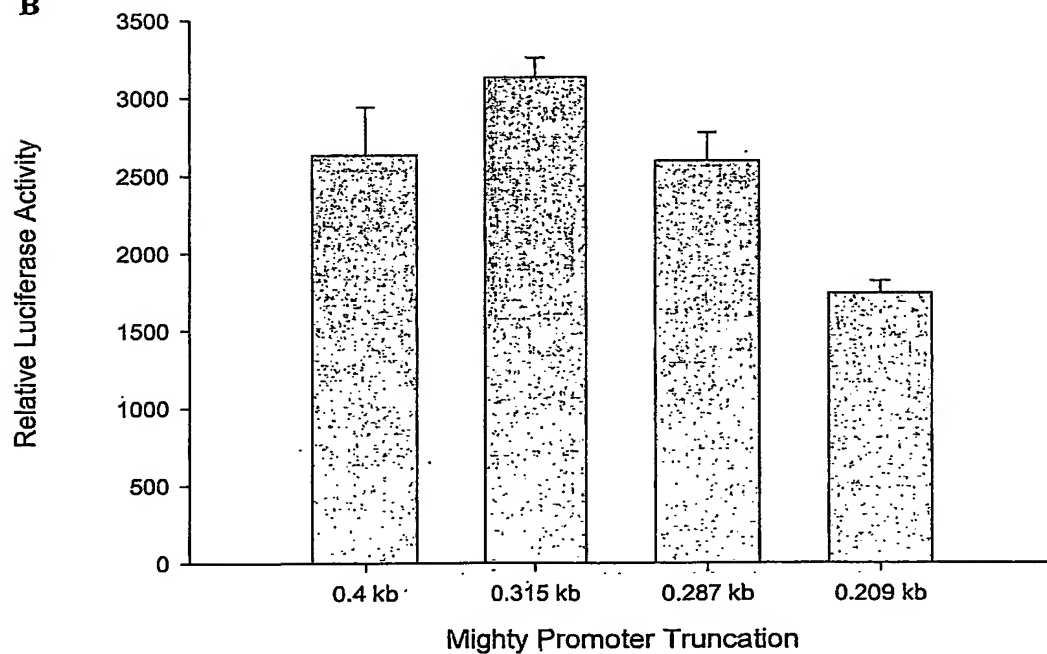


FIGURE 18

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A Mighty Promoter Truncations Normalised to beta-Gal Activity**B****FIGURE 19**

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FIGURE 20

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